

# ABSTRACT OF THE DISCLOSURE

This composite oxide powder can secure a large pore volume even after calcination at high temperature and, when a catalyst is formed by loading a noble metal on this composite oxide powder, noble metal grain growth can be suppressed. The composite oxide powder comprises particles of an oxide of a metal  $M_1$  and an oxide of a metal  $M_2$  which does not dissolve in the oxide of the metal  $M_1$ , the oxide of the metal  $M_1$  and the oxide of the metal  $M_2$  being dispersed at the nanometer level. Since different oxides serve as a barrier to each other, sintering is suppressed. Therefore, in the case of composite oxide powder comprising Ce as a metal  $M_1$  and Al as a metal  $M_2$ , grain growth is small even after exposed to high temperature and pores of 3.5 - 100 nm secure a volume of 0.07 cc/g or more after calcination at 600 °C for 5 hours and a volume of 0.04 cc/g or more after calcination at 800 °C for 5 hours.